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STRUCTURING A PROGRAM OF RESEARCH AND DEVELOPMENT FOR KENTUCKY DESIGNED TO BRING TOGETHER ALL AVAILABLE RESEARCH RESOURCES TO SUPPORT A CONTINUING PROGRAM OF VOCATIONAL EDUCATION. FINAL REPORT.

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DESCRIPTORS- PROGRAM DEVELOPMENT, *PROGRAM DESCRIPTIONS, *RESEARCH COORDINATING UNITS, *EDUCATIONAL RESEARCH, *STATE PROGRAMS, *VOCATIONAL EDUCATION, ORGANIZATION, KENTUCKY,

ORGANIZED TO PROVIDE LEADERSHIP, MOTIVATION, AND COORDINATION TO FOSTER A FAVORABLE CLIMATE FOR OCCUPATIONAL RESEARCH AND DEVELOPMENT IN VOCATIONAL EDUCATION, A RESEARCH COORDINATING UNIT WAS ESTABLISHED ON JUNE 1, 1965. THE UNIT DIRECTOR OPERATES UNDER THE ASSISTANT SUPERINTENDENT FOR VOCATIONAL EDUCATION AND THE DEAN OF THE COLLEGE OF EDUCATION OF THE UNIVERSITY OF KENTUCKY. ACTIVITIES HAVE INCLUDED--(1) EMPLOYING A RESEARCH STAFF, (2) ORGANIZING A STATE RESEARCH ADVISORY COMMITTEE, A STATE RESEARCH STEERING COMMITTEE, AND SIX RESEARCH COORDINATING COMMITTEES COMPOSED OF VOCATIONAL EDUCATION PERSONNEL AND REPRESENTATIVES FROM THE STATE EMPLOYMENT SERVICE, (3) CONDUCTING MEETINGS TO PROVIDE INFORMATION ABOUT THE UNIT AND OPPORTUNITIES TO PARTICIPATE IN ACTIVITIES, (4) CONDUCTING MEETINGS INVOLVING NATIONAL, REGIONAL, AND STATE PERSONNEL TO ESTABLISH GUIDELINES FOR DEVELOPING PROGRAM PROJECTIONS, (5) DEVELOPING A RESEARCH-RESOURCE LIBRARY, (6) CONDUCTING RESEARCH-TRAINING INSTITUTES, (7) HOLDING INTERDISCIPLINARY AND INTERAGENCY MEETINGS TO DEVELOP PLANS FOR COOPERATIVE ENDEAVORS, (8) COOPERATING WITH AGENCIES OUTSIDE THE STATE ON RESEARCH AND RELATED ACTIVITIES, (9) CONDUCTING AND DIRECTING STUDIES SUPPORTED BY VOCATIONAL EDUCATION FUNDS, AND (10) PUBLISHING A QUARTERLY NEWSLETTER, AND BROCHURES DESCRIBING ACTIVITIES OF THE UNIT. (JK)

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FINAL REPORT

**Project No. 6-3024
Contract No. OE 5-85-113**

**Structuring a Program of Research and
Development for Kentucky Designed to Bring
Together all Available Research Resources to
Support a Continuing Program of Vocational Education**

April 1967

**U. S. Department of
Health, Education, and Welfare**

**Office of Education
Bureau of Research**

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Carl F. Lamar

April 1967

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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Lexington, Kentucky

CONTENTS

SECTION		PAGE
I	INTRODUCTION	1
	Problem	1
	Background	4
	Purpose	5
II	METHOD	10
	Organization	10
	Personnel	16
	Facilities	19
III	RESULTS	21
IV	DISCUSSION	43
V	CONCLUSIONS	46
VI	SUMMARY	48
VII	REFERENCES	50
VIII	APPENDIXES	54
IX	ERIC RESUME	59

INTRODUCTION

The Problem

The central problem that prompted organizing the "Kentucky Research Coordinating Unit in Vocational Education" was the status of occupational research and development in the state, the urgency for greater emphasis on research as a basis for giving direction to more effective program planning, and the limited capability to utilize the research resources and findings in program implementation.

An expression of need for greater involvement in occupational research and related activities pertaining to vocational education came from several sources. The Report of the Panel of Consultants on Vocational Education in 1962 (41) included a strong indictment against the leadership in vocational education for inadequate attention to research as a tool in decision-making, and a recommendation that greater federal support be given to research and development to assure improved quality in vocational education programs and services.

The Panel of Consultants reported that "much less research than is needed in vocational education has been done in the field of operational efficiency, and some research findings which might improve instruction have not been implemented." The Panel of Consultants said that there was too little evidence of research capability because "few people have been trained for the field of research in vocational education . . . , and most vocational educators are pragmatists, interested mainly in the tasks they are held responsible for rather than in research."

In its recommendations the Panel said, "the importance of research in vocational education must be recognized more widely and steps taken to develop research and development commensurate with needs."

The Research Committee of the American Vocational Association, in 1962, recognized a paucity of research in vocational education because of inadequate resources and feeble efforts. Its

concern was reflected in the following statement:

The Research Committee is not optimistic for the future of vocational education if research needs and implications continue to be ignored and bypassed because of supreme concern for program operation and lack of vision for the magnitude of responsibility for future programming. (38)

The Committee emphasized the need for research activity in all parts and at all levels of the total occupational education program. In this regard, it said that "if occupational education has come of age, research must permeate all aspects of its planning, operation, organization, administration, and evaluation." (38)

The AVA Research Committee recommended the establishment of a national program of research involving federal, state, and local participation. It urged the development of a National Center for Occupational and Educational Research, and specific administrative leadership in vocational education research in the U. S. Office of Education with adequate resources to sustain it. The basic research purposes named in the committee's recommendations were coordination, stimulation, education, communication, and implementation.

Congress has reflected its concern about the meager attention given to research pertaining to educational problems, and its readiness to support a more-aggressive program of research designed to assure quality in all instructional programs. This is evidenced by the provisions made for research and development in all significant educational legislation passed in recent years, including the Manpower Development and Training Act of 1962, the Vocational Education Act of 1963, the Employment Opportunities Act of 1964, and the Elementary and Secondary Education Act of 1965.

Reflection on the national assessment of vocational education, the importance of research and activities related to sound program development, and the meager research efforts in the state, has brought into sharp focus the urgent need for attention to several aspects of the problem. A favorable climate for research endeavors is definitely needed at all professional levels of employment and in all vocational fields. Steps need to be taken to attract people with appropriate research interests, background, and

leadership ability to provide the support required for the integration of research concepts and activities into all aspects of program development. Research-training programs are needed to prepare persons in vocational education to participate in activities calling for research and to use research findings. Above all else, there is need for a plan which will provide for the establishment of research and development as part of the state program of vocational education.

Fortunately, the State was given the opportunity to plan and implement a program of research and development oriented to the basic needs for such a service in the state and to provide the structure through which the state could take advantage of developments outside the state.

The Vocational Education Act of 1963 authorizes support for research and development in vocational education in two important ways. In Sections 4(a)(6) and 4(b) research is recognized as one of the essential ancillary services needed to support state programs of vocational education. Provisions are made for its support, on a continuing basis, in approved state plans for vocational education. The Act also authorizes funds to support research and development, in Sections 4(a)(6), 4(b), and 4(c). Section 4(b) relates to federal funds allocated to the states which must be budgeted for ancillary services -- one of which is research and development. Section 4(c) indicates the kinds of research and related activities that can be supported by federal funds administered by the Commissioner of Education -- research and training programs, and experimental, developmental, or pilot programs. In Section 4(c) the kinds of institutions and agencies that should be encouraged to participate in research and development are identified. (42)

Considering the problems of integrating research and development into the operational phases of the on-going programs in the state and the opportunities made possible in the Congressional Acts relating to education for support in this area, the first step taken to develop a sound program of occupational research and related activities was to make ample provisions for it, as an ancillary service, in the 1964 Kentucky State Plan for Vocational Education. The State Plan has established a broad base for developing a research program which can take advantage of all

possible means of support, coordination, and cooperation.

Basically, the project explained in this report was designed in terms of the provisions outlined in four documents: The 1963 Vocational Education Act (42); the Rules and Regulations prepared by the Office of Education for the Administration of Federal Allotments to the States for Vocational Education (Part 104) (40); the 1964 Kentucky State Plan for Vocational Education (39); and the Guidelines for Preparing Proposals for the Establishment of State Research Coordinating Units furnished by the Commissioner of Education.

The rationale used in structuring the Kentucky Research Coordinating Unit was the belief that the immediate need was for "program-oriented research" based on a sound philosophy of vocational education and guided by clearly defined program and teaching objectives. Several strategies for educational change* were studied in an endeavor to arrive at a definition of research and development which would embrace the fundamental principles inherent in the process of educational change. Conclusions drawn from these studies provided the background of understanding which contributed to the concept of research and development accepted in Kentucky, and have served as the basic framework for the development of the program discussed in this report.

Background

Kentucky, in June 1965, was given the opportunity to establish an "occupational research and development coordinating unit" in vocational education. The proposal, entitled "Structuring a Program of Research and Development for Kentucky Designed to Bring Together All Available Research Resources to Support a Continuing Program of Vocational Education," was submitted to the U. S. Office of Education requesting federal support under

*The significant theories of educational change analyzed in attempting to formulate an acceptable definition of research and development and in structuring the Kentucky Research Coordinating Unit were: "A Taxonomy of Educational Change" by Allen Lee; "Strategies for Educational Change" by David Clark and Egon Guba; and "The Role of Research and Development in Vocational Education" by Henry M. Brickell.

Section 4(c) of the 1963 Vocational Education Act, on May 1, 1965. (33) It was approved by a letter contract with the Office of Education, pending final negotiations, June 1, 1965. The project was supported by a federal cost-basis contract and by state funds. The initial contract period was for 18 months -- beginning June 1, 1965. It was extended for an additional 4 months, with a closing date of March 31, 1967. Thus, the total contract period was for 22 months.

The need for such a unit in Kentucky became evident when efforts were made to rewrite the 1964 Kentucky State Plan for Vocational Education. The State Plan was developed to take full advantage of provisions in the Vocational Education Act of 1963 for "research and training programs, and experimental, developmental or pilot programs." The research coordinating unit was structured to carry out this part of the Kentucky State Plan for Vocational Education.

The encouragement and financial support offered by the commissioner of Education for the "Establishment of State Research Coordinating Units" provided a timely and much-needed impetus in getting a research and development program in vocational education under way in Kentucky. The suggested guidelines, prepared by the Commissioner of Education, served also to reinforce the opportunities for Kentucky to participate in research and related programs promoted at the federal and regional levels and in other states. It also gave encouragement to the state leadership to mobilize and coordinate the research talents and other resources of the state in a cooperative effort to improve vocational education in all its aspects. This effort has been exceedingly gratifying and shows promise of real accomplishments in the years ahead.

Purpose

The Kentucky Research Coordinating Unit was organized to provide the leadership, motivation, and coordination needed in the state to create and foster a favorable climate for occupational research and development in vocational education. It was given the responsibility to build and maintain a continuing program of research and development. This program was planned as an ancillary service to help assure quality in all programs of vocational education in the state.

With the emerging national emphasis on research and related activities as a means of improving and expanding educational opportunities, and the increased federal financial support in this area, it became apparent that the State Department of Education, institutions of higher education, and local school systems were inadequately staffed with research personnel to take advantage of the existing support. Thus, there was an urgency to identify, motivate, and coordinate the research talent in the state, to improve the research capability of the entire professional personnel in vocational education so they could more effectively participate in research and development activities, and to acquire additional occupational researchers.

If we were to take full advantage of the new developments in education -- especially in research and development -- the need for a state occupational research coordinating unit was evident. Such a unit was needed in order to maintain sustained emphasis on the kinds of research, training, and development required to produce the desired impact on the decision-making processes by which sound programs are developed and maintained. It seems to be a fact that decision makers must have ready access to the findings of research and utilize them if effective programs of vocational education are to be conceived, tested, and implemented.

It has become increasingly clear that a state research coordinating unit, if properly structured and supported, has a much-needed function to perform if the state is to establish research and development as an effective service to support program operations. The state research coordinating unit occupies a strategic position with the opportunity to enhance and strengthen national, state, and local cooperation, coordination, and involvement in research-related programs that are beneficial to the state in its endeavors to expand, and improve vocational education.

The Kentucky Research Coordinating Unit was set up so as to give the state leadership maximum opportunity to participate in all research and related activities, inside and outside the state, that promise to contribute to the state program of vocational education.

The significant purposes for which the Unit was organized are to:

1. Establish occupational research and development as an

integral part of all aspects of the state program of vocational education.

2. Provide effective leadership, which will maintain emphasis on the kinds of research and development programs needed in the state, and give proper guidance to improving and directing vocational education in terms of the interests, abilities, and needs of the people.
3. Facilitate and coordinate occupational research activities within the state, and help relate them with comparable activities outside the state, so as to maximize the acquisition and use of information needed to develop a well-rounded program of vocational education.
4. Stimulate and encourage the State Department of Education, colleges and universities, local school systems, and non-profit organizations to become actively involved in occupational research and development and training programs needed in vocational education.
5. Stimulate the development of programs and projects which will result in increased interest, improved competence, and greater involvement in research and related activities. They will include the pre-service and in-service training of regular personnel in vocational education and occupational researchers.
6. Conduct some research -- including assessment studies of employment opportunities, human resources, and educational resources, and follow-up studies of students -- which will be used as a base for planning programs, curriculums, facilities, and other research needed in the state.
7. Provide consultative services to institutions, agencies, and individuals interested in preparing proposals for research and training programs and experimental, developmental, or pilot projects.
8. Support the development and operation of a continuing system of state-program evaluation, at all levels and in all fields of vocational education.

9. Develop an effective program of occupational information services which will furnish needed information to appropriate people in Kentucky and elsewhere.
10. Identify the basic issues and problems relating to the nature and place of vocational education in the state school system, and determine the contributions which occupational research and development can make in resolving them.

Some specific activities anticipated for the Unit in its endeavor to carry out the above-listed purposes were:

1. Cooperate with the leaders of the Educational Research Information Center (ERIC), especially the Clearing House for Vocational Education, at the Ohio State University.
2. Cooperate with the State Department of Education in establishing the Vocational Education Program Information System (VEPIS) for Kentucky.
3. Cooperate with the Regional Educational Laboratories, Regional Research and Development Centers, and Research Coordinating Units in other states on mutually beneficial programs.
4. Provide Occupational Information Service for the personnel in vocational education in Kentucky and elsewhere on a regular basis -- collecting, synthesizing, interpreting, packaging in a usable form, and disseminating information to potential consumers.
5. Maintain an occupational research-resource library for use by the research staff in doing research, providing consultative service, and working with graduate students. It is also to be available to other persons engaged in research, training, development, and evaluation projects pertaining to vocational education.
6. Maintain a continuing system for state-program evaluation which will satisfy the federal and state requirements and serve the needs of persons responsible for state and local programs.

7. Maintain a "date bank" on occupational information, research studies, and state-program statistics which should be helpful to persons in research, and evaluative studies pertaining to vocational education.
8. Maintain a "standardized test file" for use by persons in research and development activities.
9. Communicate regularly with the professional personnel in vocational education and others interested in research and development activities.
10. Develop an "Operational Handbook" for persons working with the Kentucky Research Coordinating Unit. It will include such things as rules, regulations, operating procedures, definition of responsibilities, research priorities, and policies regarding possible financial support of research and training programs and graduate and research assistantships.

Expected outcomes from the operation of the Kentucky Research Coordinating Unit are: (1) the development of a wholesome attitude and positive commitment to research and development as an essential ancillary service to vocational education; (2) definite participation in research and related activities by all professional personnel in the state program of vocational education as producers, disseminators, or consumers; and (3) appropriate involvement in research activities to assure quality vocational education for all people in the state who should benefit from it.

METHOD

Organization

The organizational structure of the Kentucky Research Coordinating Unit is shown in Figure 1, page 11. It includes the key personnel and supporting services, and indicates the lines of communication with cooperating institutions, organizations, and agencies. The Unit is centered in the College of Education at the University of Kentucky. It was authorized by the State Board of Education. The Unit Director is jointly responsible to the Assistant Superintendent of Public Instruction for Vocational Education, State Department of Education, and the Dean of the College of Education, University of Kentucky.

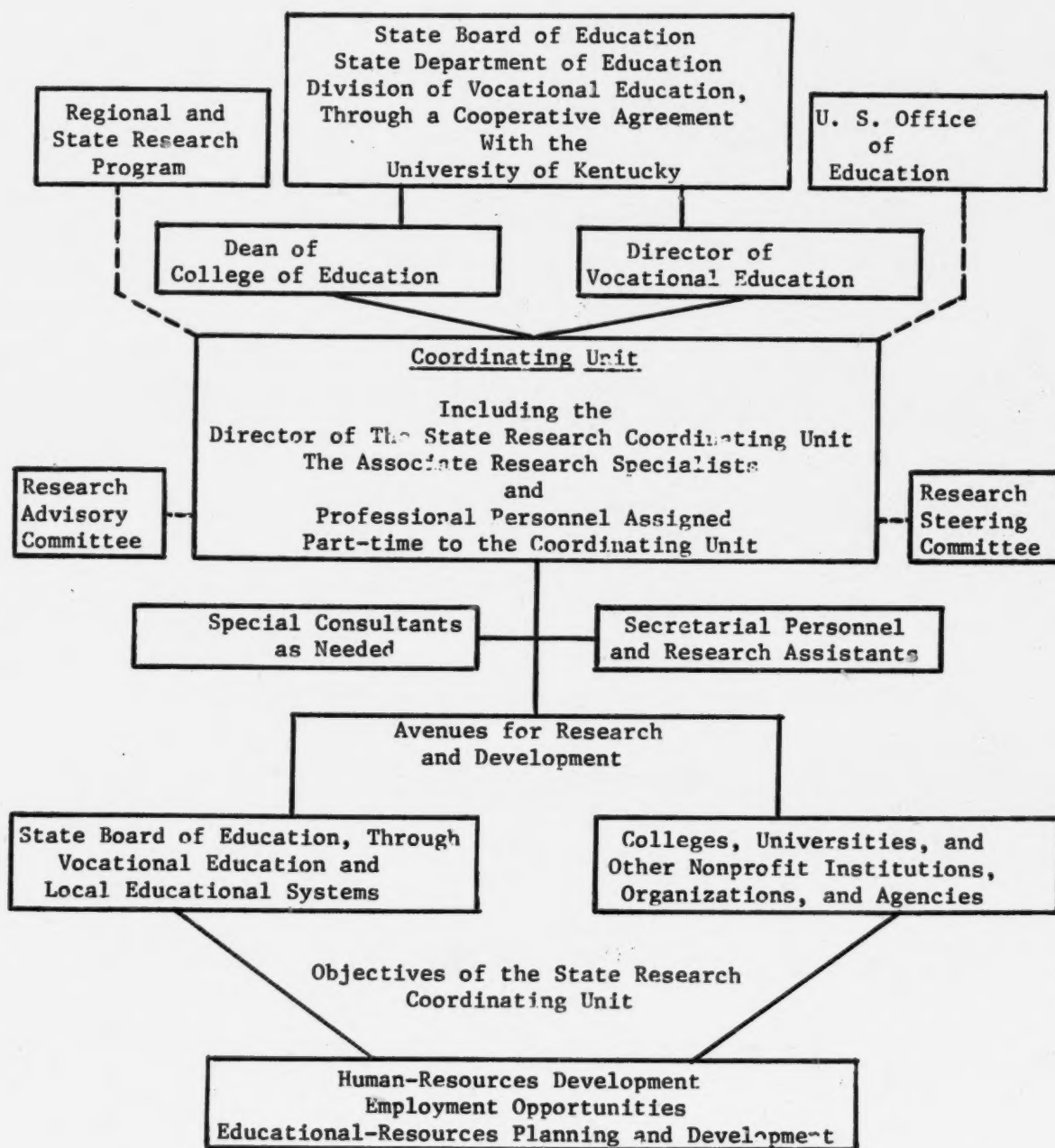
The primary responsibility for coordinating occupational research and development activities which relate to the state program of vocational education belongs to the State Board of Education. It operates under the direction of the Assistant Superintendent of Vocational Education. However, all institutions, organizations, and agencies with interests in this area, and resources which can be "keyed in" on research and development important to vocational education should be encouraged to participate actively in a coordinated program designed to serve the vocational education needs of the state.

The primary unit includes a director, five associate research specialists, four research assistants, four graduate assistants, three secretaries, and student help when needed. The primary unit represents the ancillary service in research and development provided for in the State Plan for vocational education.

In addition to the primary unit, the Kentucky Research Coordinating Unit involves 54 representatives selected from all professional levels and all program fields in vocational education, six representatives from the State Employment Service, a state research advisory committee, a state research steering committee, and special consultants as needed.

Figure 1

STRUCTURE OF FUNCTIONING OF THE STATE RESEARCH
COORDINATING UNIT



Research Coordinating Committees

The 54 representatives from vocational education and the six representatives from the State Employment Service are organized into six research coordinating committees. Each committee includes a representative from these areas: administration, agriculture, business and office, distribution and marketing, health occupations, home economics, technical occupations, trades and industry, guidance services, and the State Employment Service. A member of the research coordinating unit staff serves as chairman of each committee.

The six committees are to give attention to all areas of vocational education which call for research and training programs and experimental, developmental, or "pilot" projects. The committees are organized to relate to these areas: (1) employment opportunities; (2) human-resources development; (3) educational-resources development; (4) manpower development; (5) training programs for professional personnel; and (6) occupational information services.

The research-coordinating committees serve as the communication link between the leadership responsible for programs and programming, as provided for in the State Plan for Vocational Education, and the research staff which is responsible for stimulating, facilitating, and coordinating research and development activities needed to support program operations.

State Research Advisory Committee

The Superintendent of Public Instruction, upon recommendation of the Assistant Superintendent for Vocational Education and in accordance with the Kentucky State Plan for Vocational Education, appointed a state research advisory committee of sixteen members. This committee includes representatives from agriculture, business, home economics, industry, labor, state government, higher education, and general education.

The committee was given the responsibility to periodically review the state program of occupational research and development; compare its plans and accomplishments with the objectives of the state program of vocational education and the educational needs of the people in the state; and advise the research coordinating

unit on areas where research and related activities are needed or can be improved. The advisory committee meets tri-monthly or more often.

State Research Steering Committee

The State Superintendent of Public Instruction, upon recommendation of the Assistant Superintendent for Vocational Education, appointed a state research steering committee of ten members. These persons were selected from institutions, organizations, and agencies that have research resources -- researchers and research facilities -- which should be utilized to the extent possible in occupational research and development. The committee membership includes the agencies cited in Section 4(c) of the 1963 Vocational Education Act as being eligible to receive federal funding for research and training programs and experimental, developmental, or pilot programs oriented to the needs in vocational education. The Act includes "colleges and universities, and other public or nonprofit private agencies and institutions, . . . State Boards, and with the approval of the appropriate State Board, . . . local educational agencies." (42)

One or more of these categories of institutions have been brought into direct working relations with the Kentucky Research Coordinating Unit through the establishment of the State Research Steering Committee. This committee was given the responsibility to assess the research resources in the state, review recommendations made by the State Research Advisory Committee regarding areas where research and development are needed; review directives from the U. S. Office of Education and elsewhere, regarding suggestions, guidelines, policies, and support of occupational research. The Steering Committee makes recommendations to the State Research Coordinating Unit as to the appropriate research and training programs and experimental, developmental, or pilot programs that should be undertaken and by whom.

It was anticipated that the institutions and agencies represented by the members of the Steering Committee would be interested in undertaking the research needed. Thus, the nature of the committee membership facilitates the establishment of priorities, avoids unnecessary competition and duplication, and recommends appropriate institutions or agencies which should be

encouraged to assume responsibility for the research, training, or developmental programs needed. The Research Steering Committee meets tri-monthly or more often.

Final decisions on what action will be taken rests with the Assistant Superintendent for Vocational Education and Dean of the College of Education. Their decisions will be based on recommendations from the Director of the Kentucky Research Coordinating Unit. It is recognized that certain projects funded under Section 4(c) of the 1963 Vocational Education Act do not require approval by the State Board or its representatives.

Lines of Communication

In determining the organizational structure of the Kentucky Research Coordinating Unit, an important decision that had to be made was the responsibilities of research and development, as an ancillary service, to the state program of vocational education. This included determining the identity and role of the Unit's staff, advisory committees, and consultants, as well as the lines of communications between the Unit's staff and cooperating agencies. The groups included in the organizational structure and the lines of communication established are indicated by the flow chart in Figure 2, page 15.

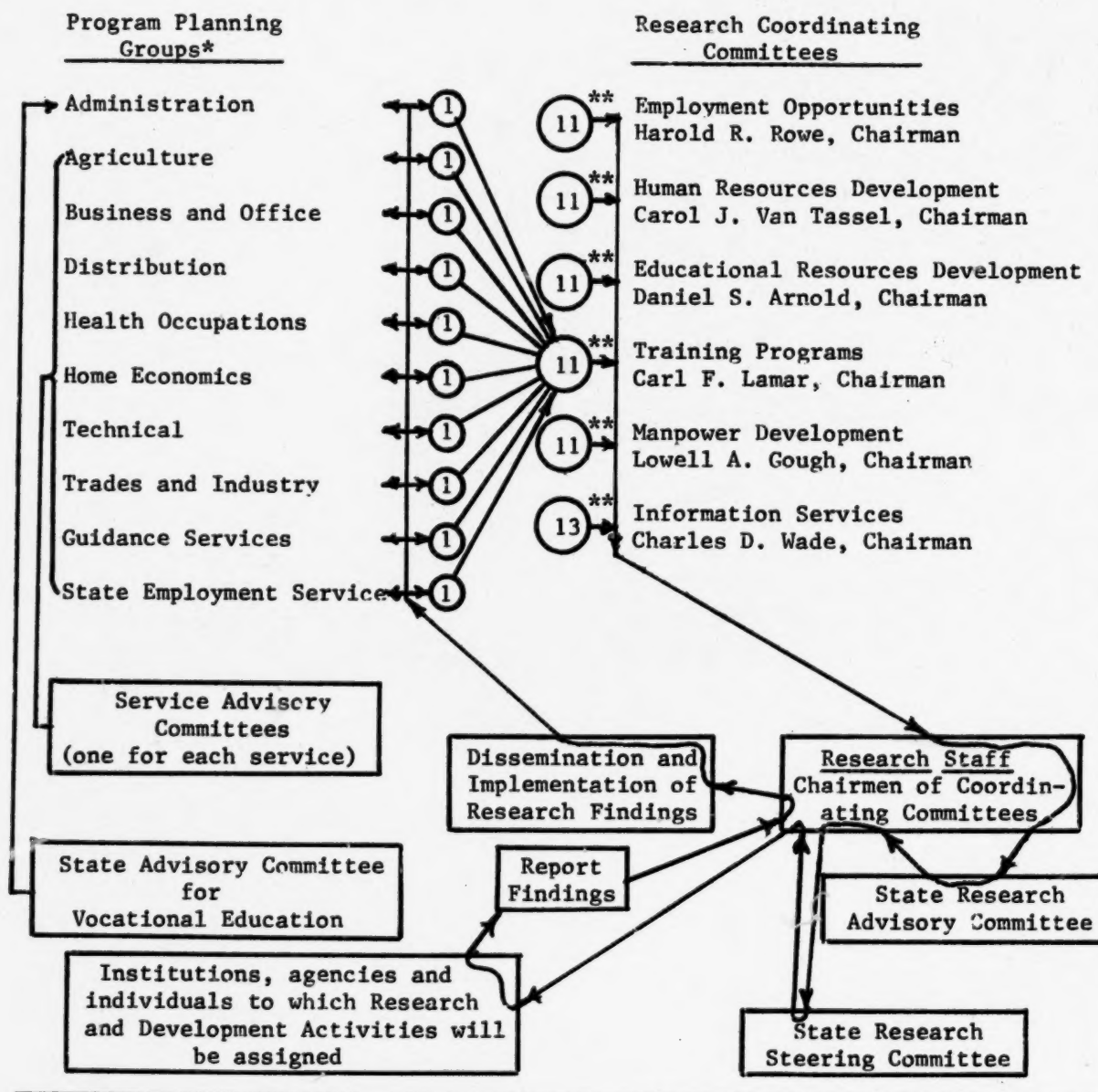
It was thought that a sound program of research and development in vocational education must start with the definition of problems. The problems should stem from endeavors to attain objectives that are in keeping with a sound and accepted philosophy. The process then continues through the implementation of research findings in on-going programs. As shown in Figure 2, at both ends of the process -- program definition and implementation -- the leadership in charge of program operations has the major responsibility for maximizing the benefits that should accrue from research and development.

The structure and relationships shown in Figure 2 are based on the belief that it is highly desirable to involve those who will benefit from research in the research process. More frequently than is now the case the educator can participate actively in the research. In any event, lines by which the researcher can communicate with the educator while the research is in progress

Figure 2

KENTUCKY RESEARCH COORDINATING UNIT

ORGANIZATIONAL STRUCTURE AND RELATIONSHIPS
-Flow Chart-



*Program planning groups include the leaders responsible for programs and programming. The research and development process begins and ends here.

**Each Research Coordinating Committee includes one representative from each Program Planning Group.

greatly increase the probability that the educator will use the research findings.

Personnel

The director of the Kentucky Research Coordinating Unit was employed as Director of Research in Vocational Education before the project proposal was prepared. He was asked to start serving as Director of the Unit June 1, 1965. He is the only staff member with a doctoral degree. He teaches graduate classes in vocational education and serves on the University Senate, the Graduate Faculty, and several standing committees in the University. He is an Associate Professor in the College of Education. He is Treasurer of the American Vocational Education Research Association; Treasurer of the American Association of Teacher Educators in Agriculture; and Chairman of the Research Coordinating Council of the Southern Region.

All of the associate research specialists and research assistants are working toward the doctoral degree. Members of the Unit, as of April 1, 1967, are shown in Appendix A. The people that were employed or appointed during the contract period, June 1, 1965 to March 31, 1967, were as follows:

The Primary Unit

A. Professional Staff

1. Carl F. Lamar, Unit Director -- major, vocational education; minor, administration. Employed half time from June 1, 1965 to March 31, 1967
2. William O. Hall, Associate Research Specialist in Occupational Studies -- major, Guidance and Counseling; minor, Psychology. Employed full time from September 1, 1965 to June 30, 1966. (Position remained vacant until April 1, 1967)
2. Harold R. Rowe, Associate Research Specialist in Occupational Studies -- major, Evaluation and Research Design. Employed full time on April 1, 1967. (Replaced Mr. Hall)

3. Bernard T. Fagan, Associate Research Specialist in Manpower Development -- major, Vocational Education; minor, Sociology. Employed full time from September 1, 1965 to June 30, 1966. (Position remained vacant 2 1/2 months.)
3. Lowell A. Gough, Associate Research Specialist in Manpower Development -- majors, Education and Psychology. Employed full time from September 15, 1966 to March 31, 1967. (Replaced Mr. Fagan)
4. Daniel S. Arnold, Associate Research Specialist in Educational Resources Development -- major, Curriculum; minor, Research. Employed full time from January 1, 1966 to March 31, 1967.
5. Carol Jane Van Tassel, Associate Research Specialist in Human Resources Development -- major, Sociology; minor, Statistics. Employed full time from January 1, 1966 to March 31, 1967.
6. Charles D. Wade, Associate Research Specialist in Occupational Information Services -- major, Vocational Education; minor, Agriculture. Employed full time from October 1, 1966 to March 31, 1967.

B. Research Assistants (all employed half time)

1. Norma Miller -- major, Library Science. Appointment from September 1, 1965 to December 31, 1966.
2. Frank R. Asbury -- major, Guidance and Counseling. Appointment from January 1, 1966 to March 31, 1967.
3. Charles H. Gibson -- major, Vocational Education, Appointment from September 1, 1966 to March 31, 1967.
4. Charlotte Denny (Mrs.) -- major, Guidance and Counseling. Appointment from December 1, 1966 to March 31, 1967.

C. Graduate Assistants (all employed half time)

1. Marvin Albin - major, Business and Office Education. Appointment from June 1, 1966 to February 16, 1967.
2. Roy Giehls, Jr. -- major, Vocational Education. Appointment from August 15, 1966 to March 31, 1967.
3. Shirley A. Price (Mrs.) -- major, Home Economics Education. Appointment from September 1, 1966 to March 31, 1967.
4. Nancy M. Campbell -- major, Home Economics Education. Appointment from September 1, 1966 to December 19, 1966.
5. Sherry L. Kelley (Mrs.) -- major, Library Science. Appointment from January 1, 1967 to March 31, 1967.
6. Ellen Malone (Mrs.) -- major, Business and Office Education. Appointment from February 20, 1967 to March 31, 1967.

D. Secretaries (all employed full time)

1. Abbie Stambaugh (Mrs.) -- employed from September 1, 1965 to August 5, 1966.
2. Donna Broughton (Mrs.) -- employed from September 1, 1965 to April 8, 1966.
3. Naomi Owens -- employed from April 1, 1966 to June 30, 1966.
4. Anne Mills (Mrs.) -- employed from July 7, 1966 to March 31, 1967.
5. Patricia Hiatt (Mrs.) -- employed from August 8, 1966 to March 31, 1967.
6. Kathleen Brown (Mrs.) -- employed April 1, 1967.

E. Research Coordinating Committees

See Appendix B

F. State Research Advisory Committee

See Appendix C

G. State Research Steering Committee

See Appendix D

H. Special Consultants

1. Allen Lee
2. John K. Coster
3. Desmond Cook

4. Carsie Hammonds
5. David Krathwohl
6. John D. Rowlett

Facilities

The Kentucky Research Coordinating Unit is located in the College of Education at the University of Kentucky. The University assigned space for the Unit in the Taylor Education Building and agreed to completely renovate the area. The area includes six offices, a room for research and graduate assistants, a room for student help and assembling materials, area for secretaries, a conference room, and a room for the research-resource library. All the space has been renovated except the room for the research-resource library which is now being renovated. Plans have been submitted for completing the library and air conditioning the entire area. This renovation should be completed soon.

The University of Kentucky Research Foundation authorized funds for buying new office furniture and equipment for the Kentucky Research Coordinating Unit. It includes typewriters, dictating equipment, calculators and stands, desks, chairs, book cases, library shelves, filing and supply cabinets, conference tables, library tables, copying machine, and a micro-fiche reader and reader printer. All of the office furniture and equipment has been purchased.

The location of the Kentucky Research Coordinating Unit at the University of Kentucky makes readily accessible many

resources at the University which facilitate the research and training activities of the Unit. The Unit has access to the facilities of the Computing Center; the University, college and departmental libraries on campus; and a staff of competent consultants in the related disciplines as well as research specialists. The University of Kentucky Research Foundation has been extremely helpful in preparing proposals, negotiating contracts, operating the program, and giving financial support to the Unit. Other organizations on campus have been helpful. They include the Bureau of Business Research, the Center for Developmental Change, the Bureau of School Service, and the College of Agriculture and Home Economics.

A strong feature of the setup for the Coordinating Unit is the way that the Division of Vocational Education is organized in the College of Education. The Division includes all of the vocational education fields. Thus, the teacher education programs in all fields of vocational education are closely associated with the Research Unit. Also, the instructional materials laboratory in vocational education is located adjacent to the Unit. The Instructional Materials Laboratory has a staff of eight professional people serving all vocational education fields.

The State Department of Education also represents an important research resource. The University of Kentucky is only 25 miles from the State Department of Education. Therefore, the resources of the State Department have been readily accessible to the Unit. The resources include a computing center and statistical department, a resource library, and consultants from many areas of education, including all fields of vocational education.

A resource of great potential value to the Unit is the college student. The students and the Research Coordinating Unit can be of mutual benefit. The students can serve as graduate or research assistants to the Unit's staff in conducting research and related activities. The Unit provides the students opportunities for valuable research experience.

RESULTS

The results of the Kentucky Research Coordinating Unit, from June 1, 1965 to March 31, 1967, have been classified as to the purposes of the Unit. Proposals and publications of the Unit referred to in this section are listed separately in the Section on "References."

1. Organization of the Kentucky Research Coordinating Unit and Employment of Research Staff

In organizing the Kentucky Research Coordinating Unit, the employment of competent research personnel has been a continuing problem. The Director of the Unit is the only staff member that has been employed for the entire period of the contract. No other staff member was employed until September 1, 1965. Then two associate research specialists, one research assistant, and two secretaries were employed. On January 1, 1966, two more associate research specialists and a second research assistant were employed. As of September 1, 1966, the third research assistant and four graduate assistants were employed. The fifth and last associate research specialist was added to the Unit on October 1, 1966.

The Unit was not fully staffed until April 1, 1967. During the contract period of the project there was some turnover of personnel, and vacancies existed for certain positions while replacements were being sought. The two associate research specialists employed September 1, 1965, left the Unit June 30, 1966, to devote full time to their doctoral programs. One was replaced three months later, the other vacancy was filled nine months later. There has been some turnover of secretaries. Of the five different ones employed during the 22 months, three are not with the Unit. One research assistant and two graduate assistants completed their work at the University and have left the Unit.

Because of the competition for researchers throughout

the country, it has been necessary to employ persons with research potential who needed the opportunity to complete their professional preparation and to acquire research experience. All of the associate research specialists and research assistants employed by the Unit were working toward the doctoral degree. This has been a limiting factor in organizing the Unit and stabilizing the research operations.

2. Development of An Understanding of Research and Development, and Identification of the Needs for Research and Related Activities in Vocational Education

In organizing the Kentucky Research Coordinating Unit, it was assumed that an informed professional clientele would actively support the objectives of the Unit. Also, it was believed that the people responsible for program development would accept primary responsibility for identifying the problems which called for research and related activities. The same people would then be expected to assume the responsibility for getting the research findings used in improving instructional programs.

With these assumptions, a major effort was made to orient all professional workers in vocational education to the provisions of the 1964 Kentucky State Plan for Vocational Education, and to the objectives of the Kentucky Research Coordinating Unit. The structure of the Unit was planned so as to maintain continuing contact with the entire professional group and to solicit their maximum involvement in the program. This objective has not been satisfactorily attained; however, favorable progress is evident and, with a more stable staff, the outlook for accomplishment in the future is encouraging.

In September 1965, five research coordinating committees were organized to work with the Kentucky Research Coordinating Unit in carrying out its objectives. The committees include teachers, directors of area vocational schools, teacher educators, guidance counselors, coordinators, supervisors, administrators, and representatives of the State Employment Service.

The people on these committees met at the University of Kentucky to become acquainted with the Kentucky Research Coordinating Unit -- its objectives, proposed structure, and intended activities. The groups were oriented to the proposed functions of the research coordinating committees, the responsibilities of individual members, and the intended relationship between the Unit and the people responsible for programs and programming in vocational education.

At this meeting three other committees were appointed. They were given the responsibility to develop a definition of vocational education, formulate a statement of philosophy, and identify the objectives which would serve as guidelines for program development. Their work will be published when it is completed.

In September 1965, Dr. Allen Lee was invited to Kentucky, as a consultant, to help the leaders in vocational education acquire a functional understanding of the concept of "research and development in vocational education." Representatives from higher education, the State Department of Education, and local school systems, and the State Research Advisory Committee and the State Research Steering Committee were invited to participate. A series of meetings was scheduled over a five-day period. Dr. Lee presented "A Taxonomy of Educational Change" and discussed the responsibilities of certain individuals and groups at the different steps in the process. (18)

In October 1965, all professional personnel responsible for programs of vocational education in Kentucky, and others interested in the program, were asked to attend a series of meetings held throughout the state. The purposes of these meetings were: (1) to explain the 1964 Kentucky State Plan for Vocational Education and indicate opportunities for program development; (2) to explain the objectives of the Kentucky Research Coordinating Unit and make clear the opportunities for participation in research and related activities; and (3) to assess the concerns of persons attending the meetings regarding problems in vocational education which indicate the need for research and training programs. These meetings were well attended.

In December 1965, plans were made to involve the state leadership in a series of meetings designed to develop concepts, understandings, and plans for program development in all areas of vocational education. A concerted effort was made to focus attention on the "Changing World of Work." The objective was to identify the implications for vocational education, and the needs for extending, expanding, and improving programs throughout the state. It was hoped that these meetings would lead to a sound basis for program projections over the next two years and beyond. These meetings represented a cooperative effort with the U. S. Office of Education, and representatives from the Region III Office of HEW. A total of fifteen meetings were planned. (5)

In January 1966, the series of meetings was initiated by a three-day workshop. The keynote speaker was The Honorable W. Willard Wirtz, Secretary of Labor. The subject of his address was "The Changing World of Work." Others participating in the workshop were Walter M. Arnold, Assistant Commissioner for Vocational and Technical Education, U. S. Office of Education; Stanley H. Ruttenberg, Manpower Administrator, U. S. Department of Labor; and George E. Wallace, Representative from Region III.

Fourteen meetings were conducted after the initial three-day workshop. They pertained to the different program areas provided for in the Kentucky State Plan for Vocational Education. The meetings dealt with the following topics: (1) Health Occupations Education; (2) Occupational Education for Persons with Special Needs; (3) Agricultural Education; (4) Business and Office Education; (5) Distributive Education; (6) Home Economics Education; (7) Technical Education; (8) Trades and Industrial Education; (9) Vocational Guidance Services; (10) Manpower Development and Training; (11) Cooperation Between the State Employment Service and Vocational Education; (12) Construction of Vocational Education Facilities; (13) Administration and Leadership; and (14) State Program Evaluation.

This series of meetings was extremely helpful to the

Kentucky Research Coordinating Unit. The research staff had a good opportunity to get acquainted with the leaders in vocational education at the state, regional, and national levels. It had the opportunity to relate research and development to the problems raised in the meetings. It also had the opportunity to orient members of the research coordinating committees to their responsibilities in promoting research and development.

In working with the leaders in vocational education in Kentucky, it has become obvious that considerable basic training in the fundamentals of research is needed by the entire professional group if research and related activities are to have the desired impact on program development. The leaders must acquire a better understanding of the research processes and look to research and development as an essential tool in finding better solutions to educational problems.

In the summer of 1966, emphasis was placed on research training institutes. Personnel in all vocational education services were encouraged to take advantage of opportunities to attend the leadership conferences, workshops, seminars, and institutes sponsored by the U. S. Office of Education. Four institutes were conducted in Kentucky. Two of them were financed with Vocational Education 4(a) funds: -- one pertaining to business and office occupations (16) and one regarding off-farm agricultural occupations (7). An institute pertaining to occupations for gainful employment in home economics was supported by Vocational Education 4(c) funds (9).

The Kentucky Research Coordinating Unit conducted a research training institute for professional personnel in vocational education. It was an eight-week institute financed with funds available under Title IV of the Elementary and Secondary Education Act (12). Thirty persons were selected for this institute. They came from all vocational education services and represented all levels of responsibility -- teachers, coordinators, supervisors, and teacher educators. More institutes of this kind are needed to develop favorable attitudes toward research and cooperation in conducting research and related projects.

Since September 1966, major efforts of the Unit have been on the research projects identified in the original proposal, and on others largely identified during the series of meetings on program projections and during the research-training institute. Considerable time has been used for consultations and assistance on such activities as problem definition, preparation of research and training proposals, conferences, and workshops.

Since the schedule for the final quarter of the project indicated that a "Master Plan for Research and Development in Kentucky" would be formulated, attention has been focused on an evaluation of the Unit. Interest in such an evaluation has been reinforced by the possibility of extended federal financial support for state research coordinating units under Section 4(c) of the 1963 Vocational Education Act, and the need to make a case for continued state support. This evaluation has been assigned to the State Research Steering Committee. A copy of its report will be filed with the U. S. Commissioner of Education.

Both the State Research Advisory Committee and the State Research Steering Committee have recommended a continuation of the Kentucky Research Coordinating Unit as structured in Figure 1 on page 11. The continuation proposal approved April 1, 1967, for an extended 15 months was developed on the basis of the structure outlined in Figure 1 (31).

3. Development of Cooperation and Coordination with Institutions, Organizations, and Agencies in Kentucky on Research and Related Activities of Mutual Concern

a. Three meetings were held with several departments of state government (Agriculture, Commerce, Economic Security, Education, Health, and Labor) to identify areas of mutual interest and develop plans for cooperative effort.

- (1) The group considered the need for a statewide occupational study and how it could be carried out. There was agreement on the need for such a study.

A proposal was developed, but it has not been funded (34). It has been broken down into several smaller studies which are underway or have been completed.

- (2) The group agreed to have periodic meetings to discuss current problems or issues of common concern.
 - (3) The discussion led to other meetings involving two or more departments and other related organizations.
- b. Three meetings were held with state health agencies and associations to consider the need for a coordinated state program of health services and the place of vocational education in such a program.
- (1) The group recognized the urgency of a state health manpower needs study and drafted a resolution requesting the Governor to appoint a commission to make such a study. He has the recommendation under consideration.
 - (2) The Kentucky Research Coordinating Unit was asked to complete a survey of hospitals in the state which had been initiated by the American Hospital Association (6). The information was used to indicate the need for the Governor's Commission.
 - (3) Several meetings have been held with the State Department of Health to consider proposals for projects of mutual interest -- one on training home health aides and one on surveying unemployed registered nurses in the state.
- c. At least six meetings were held with the State Employment Service to develop plans for carrying out the cooperative agreement included in the Kentucky State Plan for Vocational Education.
- (1) Six committees were jointly appointed by the Director of Economic Security and the Assistant Superintendent for Vocational Education. The committees

submitted reports to the combined group on activities that should be cooperatively carried out by the two agencies. A consolidated report was completed and circulated (11).

- (2) These two agencies have been communicating regularly on problems and programs of mutual concern.
 - (3) The two agencies are interested in getting a state-wide occupational study completed. The State Employment Service is conducting such a study in the "Greater Louisville Area." It should be helpful to vocational education.
- d. The State Department of Commerce cooperated with the Bureau of Vocational Education, State Department of Education, in financing "A Study of Skilled, Technical, and Clerical Occupations in 20 Counties in Central Kentucky." The study was conducted by Spindletop Research, Inc. (13) (14) Representatives of the KRCU served on the Steering Committee.
- e. The State Department of Commerce and the Bureau of Vocational Education, State Department of Education, jointly sponsored a survey, conducted by Mrs. Mary Alta (Hood) Tucker, to determine the education and training that industry would like persons who come directly from the public schools to have for job entry. A purpose of the study was to bring the schools, business, and industry closer together so as to meet the needs of persons preparing for employment in industry. The title of the final report is "Education and Industry in Kentucky." (10)
- f. The Louisville and Jefferson County Boards of Education have asked the KRCU to assist them in making a Vocational Education Needs study of the Greater Louisville Area." Three meetings have been held on the problem. Plans have been developed to get the community organized to support such a study.
- g. The KRCU cooperated with representatives from the

Fayette County Schools, Special Education and the Bureau of School Services both at the University of Kentucky, and the State Department of Education, in preparing a proposal for a pilot program for "Youth with Special Needs in the Fayette County Schools." The proposal was part of a Region 4B PACE project submitted for support under Title III of the Elementary and Secondary Education Act of 1965 (24). The project was approved.

- h. The KRCU was asked to work with three agencies -- the Bureau of Apprenticeship Training (BAT), Basic Adult Education, and Vocational Education, to develop a pilot program for unemployed and underemployed persons who are eligible for training under the Manpower Development and Training Act. The project proposes to integrate basic education, vocational education, and on-the-job-training in a 104-week training program. The proposal is in the discussion stage.
 - i. The KRCU assisted representatives from Morehead State University in preparing a proposal for a study of "Employment Opportunities and Useable Agricultural Skills in Non-farm Agricultural Occupations in Appalachia," served on the advisory committee for the study, and helped process the data. The study was directed by Dr. Roy D. Dillon and supported under Section 4(c) of the 1963 Vocational Education Act. (8)
 - j. The KRCU worked with representatives from Murray State University in preparing a proposal for the "Identification of Technical Competencies Needed by Teachers of Selected Areas of Vocational Industrial Education(35). Dr. C. Dale Lemons is director of the study. He has submitted the proposal to the Commissioner of Education for financial support. It has received some state support in the planning and developmental stages.
4. Cooperation with Organizations Outside the State to Stimulate and Coordinate Research and Related Activities of Mutual Concern
- a. The KRCU has been asked to cooperate with the Center

for Research and Leadership Development at the Ohio State University on several activities:

- (1) An Ad Hoc Committee to review and discuss plans for establishing the ERIC Clearing House for Vocational and Technical Education.
 - (2) Cooperate with the Clearing House in securing research studies and related materials that should be processed by the Clearing House.
 - (3) Cooperate with the Center and with New Jersey and Colorado on a project to develop a model for State Program Evaluation. The model will be tested in the cooperating states. L. C. McDowell was employed to represent Kentucky on this project.
- b. The KRCU has been asked to cooperate with the Center for Occupational Education at North Carolina State University on several activities.
- (1) A Regional Seminar on Planning Developmental and Related Programs in Occupational Education.
 - (2) Research Coordinating Council Involving all Institutions and Agencies in the Southern Region that are Interested in Occupational Research (This includes the North Carolina Center, four regional educational laboratories and the state research coordinating units in Regions III and IV).
 - (3) Regional Study on "The Formulation of Administrative Policies for Vocational Education by Selected States."
- c. The KRCU was asked to cooperate with the Wisconsin Center for Vocational and Technical Education in securing information on all vocationally reimbursed programs in Kentucky which will go in a National Directory.
- d. Kentucky is cooperating with four other states on a study designed for the "Evaluation of Vocational Home Economics Programs." This project is partially

supported with State 4(a) Vocational Education funds. The cooperating states are Georgia, South Carolina, Tennessee, Florida, and Kentucky. Anna M. Gorman is representing Kentucky.

- e. Kentucky is cooperating with the University of California on a National Study of the Administration of Vocational and Technical Education by State Departments of Education. We have agreed to provide certain information and schedule persons for interviews. E. P. Hilton is a member of the Advisory Committee for this study.
- f. Members of the KRCU have been working with Planning Committees for the Appalachia Educational Laboratory since its inception. Several meetings were held to conceptualize the structure of the Laboratory and prepare a proposal for establishing it. During the past year a member of the staff has served on a committee appointed by the Laboratory to develop a school-to-work project involving the use of occupational information.

5. Provide Assistance and Consultative Help on Research and Related Activities Conducted by Persons in Vocational Education

The proposals, studies underway, and studies completed by persons in vocational education are listed in the "References" section. The KRCU staff has provided assistance and consultative help on these projects.

- a. Three committees were appointed to formulate an acceptable definition of vocational education and a statement of the philosophy and objectives of vocational education in Kentucky. This expression was needed as a guide for state-program development and evaluation.
- b. Demonstration Center on the Training of Youth in Off-farm Agricultural Occupations at Reidland High School. Harold R. Binkley and W. C. Montgomery, Project Directors, and Clayton Riley, teacher of agriculture(19).
- c. Determining Employment Opportunities in Kentucky

Where Knowledge and Skills in Home Economics are Involved. Anna M. Gorman, Director (22)

- d. A Survey of Farming Occupations in Selected Counties of Western Kentucky, to Determine the Needs for Programs of Vocational Agriculture. C. O. Neel, Director (37)
 - e. A Survey of Off-farm Agricultural Occupations in Selected Counties of Southern Kentucky to Determine the Need for Programs of Vocational Agriculture. Jerry W. Greer, Director (25)
 - f. The KRCU staff conducted a joint meeting of the Division of vocational education, College of Education, University of Kentucky, and the Bureau of Vocational Education, State Department of Education, on October 10, 1966, to discuss the needs for summer training institutes for the professional personnel in Kentucky in 1967. It was agreed that Kentucky wanted to take advantage of the opportunities for federal financial support of such institutes and would like to be host for eight institutes. Eight committees were appointed to develop proposals for the institutes and submit them to the U. S. Office of Education for approval. Three of the eight proposals were approved (20) (30) (32).
 - g. The KRCU conducted a three-day workshop, October 10-12, 1966, for the Division of Vocational Education in the College of Education at the University of Kentucky on "How to Prepare Proposals for Research and Related Activities." About 35 persons participated.
 - h. The KRCU conducted an all-day meeting on October 17, 1966, for the Bureau of Vocational Education, State Department of Education, on the status of research and development activities in the state and elsewhere.
6. Organization and Direction of Research Activities Within the Kentucky Research Coordinating Unit

In organizing the Kentucky Research Coordinating Unit

it was soon seen that the employment of experienced researchers in the immediate future would be difficult if not impossible. It was also understood that the stimulation of vocational education personnel to undertake research and development activities would be a slow process with limited success in the early part of the program. Therefore, the Research Coordinating Unit needed to be organized so that it would have control of adequate resources to make sure that positive action could be taken to get an acceptable program of research and development underway.

It was concluded that the research staff should have the opportunity to do some research with the help of graduate and research assistants and other students. It was also believed that the research staff should make extensive use of experienced researchers as consultants in carrying out the research needed.

The intention was to develop a favorable research climate within the Unit structure and provide a good research laboratory for the staff, graduate students who need research experience, and other educational personnel who could be encouraged to take advantage of the opportunity to improve their research competencies and become more involved in research activities. It was hoped that progress would be made in extending the scope of influence and operations to all aspects of the state program of vocational education and other educational institutions, organizations, and agencies interested in occupational research.

Many of the activities within the Unit resulted in the acquisition, collection, organization, and dissemination of knowledge needed to promote occupational research in the state. Among the activities were establishing a research-resource library, conducting a research-training institute, and providing research laboratory experience for graduate students.

Considerable effort went into establishing a research-resource library in vocational education. The library was planned and put into operation by a research assistant majoring in library science. On October 1, 1966, the

direction of the library was assigned to the Associate Research Specialist in Occupational Information Services. The library has outgrown its temporary location and will be moved soon to newly renovated quarters. The library resource is used as a research tool by the Unit's staff, and has provided background information for numerous studies as well as information on research techniques, design, and funding. As increased attention is given to research studies, the need for library research, and the importance of information gathering and dissemination, the library will take on increased significance and will grow in size.

Although the primary functions of the Unit are to stimulate and guide research and development conducted by others, it will also make some investigations. It will do so when needed research of high priority is not being conducted by other organizations, and when by doing it the Unit will provide experience, challenge, and refreshment to the staff, and when it will serve as a model of quality research in progress for the laboratory experience of graduate students assigned to the Unit.

Long-range planning for the Unit includes its use as a laboratory for all of the University students enrolled in vocational education. Combined with the laboratory experience, members of the Unit will provide the students with instruction in the need and opportunities for research in their subject area, and the techniques needed for conducting such research.

The staff of the Unit has undertaken several research, training, and developmental projects. They were largely assessment or benchmark studies indicated in the original proposal for the Research Coordinating Unit. Some of the proposed projects have not been initiated as yet, and some of them have not progressed beyond the proposal stage. The Unit intends to carry out all of the proposed studies and to develop several of them as continuing or longitudinal projects.

The research-training institute conducted in the summer of 1966 is an example of an activity that needs to be

repeated and expanded if people already employed in vocational education are to acquire the research competence required in an effective state program of research and development. This was an eight-week institute that enrolled thirty people selected from the different fields in vocational education. Many of these people are now engaged in research.

The Unit is developing an operational handbook which will be used to keep the Research Coordinating Unit and cooperating organizations up-to-date on the operational procedures of the Unit. It will be an aid in informing the public of the purposes of the Unit, its organizational structure, and ways that the Unit may be of help in improving vocational programs throughout the state.

Other activities of the Unit, in various stages of development, include these:

- a. Statewide assessment of Employment Opportunities of Concern to the Different Vocational Fields. The proposal was developed by Carl Lamar and John Fulmer. It has not been funded (34).
- b. Statewide Survey of Health Occupations and the Competencies Needed to Perform These Occupations (26). The proposal was prepared by William Hall. The study has not been undertaken because of the possibility that the Governor will appoint a Commission to study the Health Manpower Needs of the State.
- c. Proposal for an Appalachia Residential School for Youth with Special Occupational Education Needs (29). It is one of six proposals approved by the National Advisory Committee for Vocational Education and recommended to Congress for funding. It was prepared by Carl Lamar and submitted by Harry M. Sparks, Superintendent of Public Instruction.
- d. Survey of Educational Resources for Vocational Education in Kentucky. Daniel Arnold (Planning Stage)
- e. Survey of Research Capability in Kentucky Accessible

to Vocational Education. Daniel Arnold and Frank Asbury (underway)

- f. Development of a Research Resource-library for Vocational and Technical Education to Serve the Needs of the Research Staff and Others Interested in Occupational Research (14). This was a research project conducted by Norma Miller (completed)
- g. A Study of the Attitudes of Certain Groups Toward Vocational Education Which are Significant to Program Development. Carol Van Tassel and Roy Giehls, Jr. (underway)
- h. A Study of the Communications Network in Vocational Education in Kentucky. Daniel Arnold (in planning stage)
- i. Cost Effectiveness Study of the Vocational Education Programs in the Somerset Area Vocational-Technical School. Charles Gibson and Charlotte Denny (underway)
- j. A Survey of Vocational Educators to Determine Their Interests in Receiving Information on Research. Charles Wade (underway)
- k. A Study of Dropouts from the Youth Mobility Projects in Kentucky. Lowell Gough and Daniel Arnold (underway)
- l. A Summary of the Studies that Relate to Employment Opportunities, Human Resources, and Educational Resources in Kentucky. Lowell Gough and Frank Asbury (underway)
- m. A Summary of the Studies and Articles that Relate to Planning and Implementation in Manpower Development and Training Programs in Kentucky. Lowell Gough (underway)
- n. A Study of the Vocational Guidance Patterns and Shortages in Central Kentucky (20 counties). Daniel Arnold and Frank Asbury (underway)

- o. A Follow-up Study of the Graduates of Area Vocational-Technical Schools in Kentucky. Daniel Arnold (underway)
 - p. A Follow-up Study of MDTA Trainees in the Lafayette Area Vocational-Technical School. Lowell Gough and Daniel Arnold (underway)
 - q. Proposal for the Continuation of the Kentucky Research Coordinating Unit Through June 30, 1968 (31). Carl Lamar (approved)
7. Meetings Attended in the Interest of Research and Development

The staff of the Kentucky Research Coordinating Unit has been active in both in-state, and regional and national meetings and conferences. An attempt to find the adequate level of participation without indiscriminate travel has been made. The meetings in which the staff has participated fall into three groups: (1) Meetings to provide information on specific problems in which the Unit has an interest and to engender cooperative relations between organizations of related function; (2) Meetings and conferences at which members of the staff served in a consultative role to other groups or agencies with regard to specific projects or with respect to the organization and functioning of the agency; (3) Meetings which provide an opportunity for the professional growth of the staff members. The three categories are not mutually exclusive, but the rationale for participation held by the Kentucky Research Coordinating Unit tends to define the category to which a particular conference belongs.

Here are the meetings attended, grouped according to purpose:

- a. Meetings constructed to be of significance by providing information specifically related to the objectives of the Kentucky Research Coordinating Unit.

- (1) The Director of the Unit attended the Vocational

Education Research Seminar (May 1965), the Research Seminar on the Administration of Research Programs (February 1966), National Research Seminar for Agricultural Education (August 1965), all held at The Ohio State University. He also attended the Clinic for Directors of Vocational Research Centers, Projects and State Research Coordinating Units in Washington (July 1965), and the Meeting of Directors of Research and Development (September 1966). All of these meetings were helpful in developing guidelines for the organization and administration of the Unit.

- (2) Several members of the staff attended the Region III Vocational Education Conferences at Charlottesville, Virginia (March 1966) and Roanoke, Virginia (February 1967). All of the staff attended the Kentucky Vocational Education Conference at the University of Kentucky (July 1966). The Director attended the District Conference of Teachers of Agriculture at Mammoth Cave (November 1966). These meetings served the objectives of the Kentucky Research Coordinating Unit through the development of professional relations and information feed-back channels with the personnel in the program area fields.
- (3) Mr. Gough and Mr. Wade attended the Research Management Conference at Ohio State University (January 1967); Mr. Gibson attended the Phi Delta Kappa Symposium on the study of occupational studies and employment opportunities at University of Georgia (December 1966). These conferences dealt specifically with projects and objectives vital to the Kentucky Research Coordinating Unit.
- (4) The Director attended two conferences sponsored by the Center for Occupational Education at North Carolina State University. The first of these was on Planning Developmental and Related Programs in Occupational Education (November 1966). Included were three other persons from the service

areas in vocational education in Kentucky. The second of these was the first meeting of the Research Coordinating Council, organized by the North Carolina Center. The latter group promises to become a vital force in coordinating the efforts of research coordinating units, regional educational laboratories, and other educational research and development groups in the South.

b. Meetings and conferences at which Kentucky Research Coordinating Unit served in a consultative or advisory role.

- (1) Dr. Lamar, along with Dr. L. C. McDowell from the University of Kentucky, attended a meeting at Ohio State University (June 1966) relative to the planning of a cooperative project to develop and field test an evaluation model for a state program of vocational education. Dr. McDowell has been assigned to the resulting project since August 1966. Dr. Lamar also attended an Ohio State meeting (April 1966) to review the proposed plan of operation for the establishment of the ERIC Clearing House.
- (2) In an advisory capacity to Dr. Roy Dillon's study of non-farm agricultural occupational skills in Appalachia, which was funded under Title 4(c) of the 1963 Vocational Education Act, Mr. Arnold attended a meeting at Morehead State University (June 1966). The Director and Mr. Wade served in consultative roles to a vocational-technical seminar for Eastern West Virginia at Potomac State College (November 1966). The Director served as a consultant to the Indiana Research Coordinating Unit Conference for leaders responsible for vocational education (January 1967). In all of these meetings and conferences the staff members were involved in attempts to be of service in the establishment and conduct of research.
- (3) Mr. Arnold participated in the preliminary planning of an Appalachia Educational Laboratory project for

the development of self-administering vocational guidance materials. Meetings of this committee were held in Knoxville, Tennessee (August 1966) and Charleston, West Virginia (September 1966). Mr. Arnold later developed the experimental design for this project. Dr. Lamar served on a panel to evaluate the Oak Ridge Associated Universities Experimental Teacher Education Program in the summer of 1966, at Oak Ridge, Tennessee (September 1966).

- (4) The Director served on the Research Coordinating Committee of the Kentucky State Department of Education (Last Quarter 1966). Mr. Arnold was an observer and discussion leader at the Educational Research Institute Series for Local School Personnel sponsored by the State Department of Education, Bureau of Research (December 1966). Mr. Arnold and Dr. Lamar participated in the final session of this series (March 1967).

c. Meetings and Conferences attended in the interest of professional development of the staff.

- (1) American Vocational Association Convention, December 1965, Miami; Mr. Hall and Dr. Lamar
- (2) Conference on Research in Vocational and Technical Education, June 1965, at the Center for Studies in Vocational and Technical Education, The University of Wisconsin; Carol Van Tassel and Norma Miller
- (3) American Vocational Association Convention, December 1966, Denver; Dr. Lamar, Mr. Gough, Mr. Wade, and Mr. Arnold
- (4) National Interdisciplinary Seminar on Occupational Guidance, January 1966, The Ohio State University; Mr. Hall
- (5) Research Seminar on Curriculum Development, February 1966, University of Georgia; Dr. Gorman

- (6) American Educational Research Association Annual Meeting, February 1966, Chicago; Dr. Lamar and Mr. Arnold
 - (7) American Educational Research Association Annual Meeting, February 1967, New York; Mr. Arnold
8. Retrieval and Dissemination of Information Pertaining to the Research Coordinating Unit and Research and Development Activities Important to Vocational Education.

Information retrieval and dissemination have been considered such significant elements in conducting the activities of the Research Coordinating Unit that a director of Information Services has been added to the staff. To assist in retrieval and dissemination activities, a research-resource library has been established. Books, periodicals, and completed research studies which are helpful to the staff and research assistants are being collected and filed in the library. A graduate assistant has been used as a librarian to set up the filing system and to establish general procedures for using the reference materials. Included in the library is a complete set of ERIC micro-fiche which relate to vocational-technical education. The Unit has purchased a micro-fiche reader and a micro-fiche reader-printer to be kept in the library. A monthly listing of new micro-fiche received in the library has been distributed to persons in the Division of Vocational Education, State Department of Education.

In addition to the activities related to the library, the Unit publishes quarterly the Occupational Research and Development Newsletter (17). The mailing list for the newsletter has grown to 950. This list includes other state RCU's, vocational education personnel in the State Department of Education, teacher educators in vocational education, and one copy to each vocational department in each high school and to each area vocational school in Kentucky.

Several brochures have been developed and distributed as a part of the dissemination activities. Approximately

2,400 copies of a brochure on Kentucky Research Coordinating Unit for Vocational Education (2) were sent to principals, superintendents, vocational teachers, supervisors, teacher educators, and others. The brochure has been used to inform and to create an interest in KRCU activities. A brochure on A Research and Development Training Institute in Vocational Education (3), was used to announce the eight-week Research Training Institute in 1966. Two brochures, A Clinical Workshop in Mental Health and Psychiatric Nursing for Instructors in Schools of Practical Nursing (1) and Seminar: Persons with Special Needs (4), have been developed to announce the two summer institutes being conducted in 1967.

Staff members of the Unit have made speeches before groups, both in Kentucky and in other states. Vocational teacher organizations have requested that staff members explain the organization and activities of the Kentucky Research Coordinating Unit. Emphasis has been given to increasing the awareness of vocational educators to research and development activities and how these activities can benefit people.

News articles have appeared in the Lexington Herald newspaper, the State Department of Education publication, School News, and the Kentucky Vocational Association Newsletter. These articles announced the formation of the Kentucky Research Coordinating Unit and other important events during the past twenty-two months.

The Unit has cooperated with the Vocational Education Program Information System (VEPIS) and the Educational Research Information Center (ERIC) in their retrieval and dissemination activities related to research and development. The KRCU has offered its services to the ERIC Clearing House for Vocational and Technical Education at The Ohio State University, to assist in collecting materials of interest to people in vocational and technical education.

DISCUSSION

As already mentioned in the report, the recruitment of a professional research staff has been a continuing problem in operating the Unit. However, the fact that most of the staff have not yet reached their academic or professional goals has in some ways been beneficial to the Unit. The atmosphere engendered by a staff which is largely striving to complete its academic preparation and which is seeking new experiences in research is, to say the least, stimulating. Staff members have empathy for one another's problems and are particularly inclined toward a team approach to problem solving. The efforts and contributions of research assistants and graduate assistants are encouraged and appreciated by the staff.

The most perturbing self-assessment of the Unit has been the scant or sporadic evidence of the impact of the program on vocational education at the local level. In all fairness, the progress made should be evaluated in light of the history of the impact of research on vocational education in the Commonwealth of Kentucky. Historically, decisions which guided vocational education here in the past were much more apt to be based on intuition or the experiences of one or a few people than on research. Further overt evidence of the lack of reliance on research is obvious in the fact that the state budgeted very little money specifically for research in vocational education until the Unit was established. Undoubtly, progress toward the use of research in the solution of vocational education problems on the local level will remain an arduous task until the value of research can be demonstrated to the teachers in the local-school districts and specifically in the teaching situation.

Nonetheless, the Unit was able to demonstrate most conclusively one means whereby the methodologies and findings of research could be used on the local level. The mode of impact was the summer institute for training vocational educators in research techniques. The manifold results of the institute are still evident in the present activities of educators who attended the institute. From the point of view of the needs in Kentucky it was most unfortunate that federal funds for short-term

educational programs such as the institute had to be curtailed. It is doubtful that at present any sizeable number of vocational educators are willing or able to enter upon a long-term educational program in research without the stimulus of reimbursement for educational expenses. Meanwhile the Unit is actively exploring other means to involve vocational education personnel at the local level in the improvement of instruction through research.

Many of the foregoing findings of the report, however, warrant discussion not as liabilities but as assets. The Unit is convinced that its organizational structure was the result of a wise decision. Organizational structures built on lines of subject-matter areas or on specialization of staff members were rejected for an organizational structure to implement the triad of elements which comprise the process of vocational education: human resources, employment opportunities, and education resources development. Organization of the staff around the triad has resulted in an integrated and unified approach to a wide variety of problems. As a result, the staff is aware of and involved in all activities of the entire Unit. Moreover, additional benefits have been realized from the resemblance of the Unit's organizational structure to what exists in the vocational education branch of the Bureau of Research in the U. S. Office of Education.

The support of three branches of the State Education Department has also done much to offset the previously cited shortcomings. The Department of Vocational Education has not only given moral support to the Unit but has supplemented it with generous financial support. The Bureau of Research in the State Department of Education has given total support and unlimited assistance to the Unit. The location of the Unit on the University campus has proved to be even more beneficial than was anticipated. Many resources, human and other, so necessary for assisting and conducting research are immediately accessible. In addition, the University of Kentucky Research Foundation has supported the Unit from its inception.

The Research Coordinating Committees of the Unit have done much to overcome naivete about research and reluctance to make use of research on the local level. The committees have, moreover, given direction to the activities of the Unit by alerting

staff to local problems and needs. The maximum contributions of the Coordinating Committees can be realized only if the Unit and their relationship to it are on-going and permanent. This relationship needs to be strengthened.

An unexpected and valuable outcome of the Unit has resulted from the opportunity of the staff and others in vocational education in the state to participate in workshops, training institutes, and conferences supported by funds authorized in the 1963 Vocational Education Act. The participation resulted in insights into problems in vocational education and new approaches to their solution. Participation of this sort, as well as opportunities for the Unit staff to work with other groups such as Region III representatives and Office of Education Personnel, has brought together much expert opinion on the solution of the vocational education problems in Kentucky.

In the future, it is anticipated that the primary role of the Kentucky Research Coordinating Unit will continue to be that of stimulating, facilitating, and coordinating research and development activities which are program oriented. The emphasis will be placed on: (1) the preparation of vocational personnel and occupational researchers with increased research competencies; (2) cooperation and coordination with national, regional, state, and local research and development activities; (3) a clearing house function at the state level pertaining to the retrieval and dissemination of research results which will be helpful in improving instructional programs in vocational education; and (4) actual participation in research and development programs.

CONCLUSIONS

The Kentucky Research Coordinating Unit made considerable progress toward attaining its purposes during the first 22 months, though there were complications in getting organized and operating as planned. The Unit has received good support and cooperation from all sources contacted in the state and outside the state in striving to carry out its objectives. It is now fully staffed and ready to move into the continuation grant period with confidence that the organizational structure is sound; the purposes of the Unit are right; and emphasis on program-oriented research and development will result in significant contributions to vocational education in Kentucky.

The interest and involvement in research and related activities have steadily increased. This is evidenced by the number of research studies, training programs, and related activities undertaken. Many of these activities have revealed the need for changes in vocational education practices and programs. They have also indicated the need for a more concentrated and coordinated allocation of research resources to significant problem areas which require major emphasis. Increased attention will be given to the influence of research and development on change and how it can be accelerated in the future.

Continuing effort to strengthen and expand research and related activities is necessary if the progress made to date will lead to lasting results. The major efforts of the Unit during the next fifteen months are conceived to be: (1) Stimulation, facilitation, and coordination of expanded research and development activities involving the personnel in vocational education in the state, especially in the local school systems; (2) Expansion and enrichment of training programs for vocational education personnel at the pre-service, graduate, and in-service levels so as to improve research competencies; (3) Cooperation with agencies outside the state on activities of mutual concern; (4) Providing consulting services in occupational research, training, and developmental programs; (5) Conducting research studies of a substantive nature, especially when needed to provide experience for training graduate students and occupational researchers;

(6) Serve as a clearing house for collecting and disseminating research results which should contribute to the improvement of educational practice. The flow will be two ways -- to the people in the state and outside the state, especially the ERIC Clearing Houses.

The progress made by the Unit in attaining its purposes was reported to the U. S. Office of Education in monthly and quarterly reports. The State Research Steering Committee evaluated the effectiveness of the Unit at the end of the first year of operation. Its report was a part of the fourth quarterly report of the Unit. A final evaluation will be made by the State Research Steering Committee and submitted to the U. S. Office of Education. There will be a continuing review and assessment of the purposes and activities of the Unit in terms of the objectives of vocational education so as to determine their relevance and effectiveness. It can be expected that changes will need to be made in response to changing and expanding demands for research and development projects and programs.

SUMMARY

The Kentucky Research Coordinating Unit was established as the research-and-development ancillary service for the state program of vocational education on June 1, 1965. It was centered at the College of Education at the University of Kentucky. It was authorized by the State Board of Education. The Unit Director operates under the direction of the Assistant Superintendent for Vocational Education, State Department of Education, and the Dean of the College of Education, University of Kentucky.

The staff of the Unit consists of a director, five associate research specialists, three secretaries, four research assistants, and four graduate assistants. Consultants and student help may be employed when needed. The Research Unit has the assistance of six research coordinating committees in attempting to identify, stimulate, facilitate, and coordinate the research and development needed. Members of the research coordinating committees are selected from the various vocational education fields and from the State Employment Service. A member of the research staff serves as chairman of these committees. The Unit has the help of a research advisory committee and a research steering committee.

The Unit was established to stimulate, facilitate, and coordinate occupational education research and development activities; provide consultive help and assistance to persons interested in research and training programs, and experimental, developmental, or pilot projects; stimulate, and offer research training programs for vocational education personnel; conduct significant research; and collect and disseminate information on research and development and the results of research.

The Unit has engaged in a variety of activities designed to accomplish its purposes. The more significant activities were: (1) the employment of a research staff; (2) the acquisition and renovation of space for the Unit and the purchase of office furniture and equipment; (3) the appointment and utilization of a State Research Advisory Committee and a State Research Steering Committee; (4) the organization of six research coordinating

committees composed of vocational education personnel and representatives from the State Employment Service; (5) conduct meetings throughout the state to inform the personnel in vocational education and others about the organizational structure of the Unit and opportunities for participation in research and development activities; (6) conduct a series of program-planning meetings, involving national, regional, and state personnel, to establish guidelines for developing program projections and establishing priorities for research and development activities; (7) develop a research-resource library for use by the research staff, graduate students, and other persons involved in occupational education research and development; (8) publish a quarterly newsletter; (9) publish brochures on the Research Coordinating Unit and training institutes promoted by the Unit; (10) conduct an eight-week research-training institute for selected persons in vocational education; (11) conduct workshops on "How to Prepare a Research Proposal;" (12) hold interdisciplinary or inter-agency meetings in the state to identify areas of common concern and to develop plans for cooperative endeavors; (13) cooperate with agencies outside the state on research and related activities of mutual concern; (14) conduct research studies and direct other studies supported by vocational education 4(a) funds.

In evaluating the organizational structure, purposes, activities, and support of the Kentucky Research Coordinating Unit, the State Research Steering Committee indicated that the foregoing activities were relevant to the purposes of State Research Coordinating Units and should receive continuing support so they might be expanded and improved.

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VIII. APPENDIXES

Appendix A

KENTUCKY RESEARCH COORDINATING UNIT IN VOCATIONAL EDUCATION

-Staff on April 1, 1967-

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2. Charlotte C. Denny (Mrs.) (Major - Guidance and Counseling)
3. Charles H. Gibson (Major - Vocational Education)
4. Roy Giehls, Jr. (Major - Vocational Education)

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1. Shirley A. Price (Mrs.) (Home Economics)
2. Sherry L. Kelley (Mrs.) (Library Science)
3. Ellen M. Malone (Mrs.) (Business and Office)

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2. Anne C. Mills (Mrs.)
3. Kathleen Brown (Mrs.)

Appendix B

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Appendix C

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Louis Ison, President
Ky. Farm Bureau Federation
Harrodsburg

Albert Whitehouse, Director
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John Lewis, Exec. Vice-Pres.
Ky. Chamber of Commerce
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RETRIEVAL TERMS <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Ancillary Service</td> <td style="width: 50%;">Research Coordination</td> </tr> <tr> <td>Research Unit</td> <td>Research Coordinating Center</td> </tr> <tr> <td>Research Development</td> <td>Research and Related Activities</td> </tr> </table>												Ancillary Service	Research Coordination	Research Unit	Research Coordinating Center	Research Development	Research and Related Activities
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Research Unit	Research Coordinating Center																
Research Development	Research and Related Activities																
IDENTIFIERS State Research Coordinating Unit, Occupational Research and Development, and Research Ancillary Service																	
ABSTRACT This report documents efforts in Kentucky to integrate research and development concepts and practices into programs in vocational education throughout the state by establishing the Kentucky Research Coordinating Unit. It was organized as the research and development ancillary service for the state programs of vocational education. The final report describes the major observable results of the Unit during the first 22 months of operation, June 1, 1965 to March 31, 1967. The report describes the rationale for organizing the Unit according to the structures and functions outlined. It explains the purposes of the Unit as well as the method of organizing, staffing, providing facilities, and operating it. The results are illustrated and verified by citations of publications of the Unit and by organizations which have cooperated with it. The projects, activities and publications of the Unit are listed with its future plans and goals.																	